

REVISION OF AUSTRALIAN DICROTELINI WITH THE DESCRIPTION OF THREE NEW GENERA (HEMIPTERA:REDUVIIDAE)

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ABSTRACT

Three new genera, *Barlircduvius* gen. nov. (type species *B. westraliensis* sp. nov.) from Western Australia, *Arrilpecoris* gen. nov. (type species *Arrilpecoris aridelus* sp. nov.) from Northern Territory and *Karlaçoris* gen. nov. (type species *K. roundaus* sp. nov.) from Western Australia are described. The following synonymies are made: *Orgetorixa* China, 1925 and *Neonyllius* Miller, 1954a with *Nyllius* Stål, 1859; *Nconyllius echinus* Miller, 1954a with *Nyllius asperatus* Stål, 1859; *Dicranurocoris* Miller, 1954b with *Dicrotelus* Erichson, 1842; *Dicranurocoris victoriae* Miller, 1954b, *Dicranurocoris canberrae* Miller, 1954b and *Dicranurocoris tasmaniac* Miller, 1954b with *Dicrotelus prolixus* Erichson, 1842; *Orgetorixa evansi* Miller, 1954a and *O. saeva* Miller, 1954a with *O. australica* China, 1925; *Paranyllius pudicus* Miller, 1954a with *P. turneri* Miller, 1954a. *O. australica* transferred to genus *Nyllius*. Notes on diagnosis of Australian members of tribe Dicrotelini, and a key to genera are provided.

KEYWORDS: Hemiptera, Reduviidae, Dicrotelini, new genera and species, Australia.

INTRODUCTION

Stål (1874) included the Australian genera *Dicrotelus* Erichson and *Nyllius* Stål in his subfamily Reduviina without including them in his key to the genera of the subfamily. Lethierry and Severin (1896) catalogued these genera under the subfamily Harpactoridae.

Stål (1859) placed *Dicrotelus* and *Nyllius* in Dicrotelida Stål, but Miller (1954a) for the first time employed the term Dicrotelini to include the genera *Henricohahnia* Breddin (included previously under Division Polididusaria by Distant (1904)), *Tapirocoris* Miller, *Karenocoris* Miller and *Malaiseana* Miller from the Oriental Region, and *Nyllius*, *Dicrotelus*, *Orgetorixa* China, *Paranyllius* Miller and *Neonyllius* Miller from the Australian Region.

Dicrotelines form a distinct group, and although placed in the subfamily Harpactorinae, they share the following characters with such genera as *Oncocephalus* Klug, *Pygolampis* Germar and *Sastrapada* Amyot and Serville of the subfamily Stenopodinae: elongate, linear body shape, slightly incrassate fore femur, antennal segment 1 slightly thicker than other segments, sickle shaped

paramere, endosoma without minute spines, but with sclerotized lobes.

The present contribution describes three new genera from the Northern Territory and Western Australia to bring the known Australian dicroteline fauna to 6 genera and 7 species.

In the following descriptions all measurements are in millimetres.

Abbreviations for institutions and collections: ANIC Australian National Insect Collection, CSIRO, Canberra; BM British Museum (Natural History), London; MV Museum of Victoria, Melbourne; QM Queensland Museum, Brisbane; SAM South Australian Museum, Adelaide; TDA Tasmanian Department of Agriculture, Hobart; TM Tasmanian Museum, Hobart; UQIC University of Queensland Insect Collection, Brisbane; WAM Western Australian Museum, Perth.

SYSTEMATICS

The tribe Dicrotelini may be recognized by the combination of the following characters:

Body usually elongate, linear. First segment of antenna thicker than other segments, head dorsally with a median conically

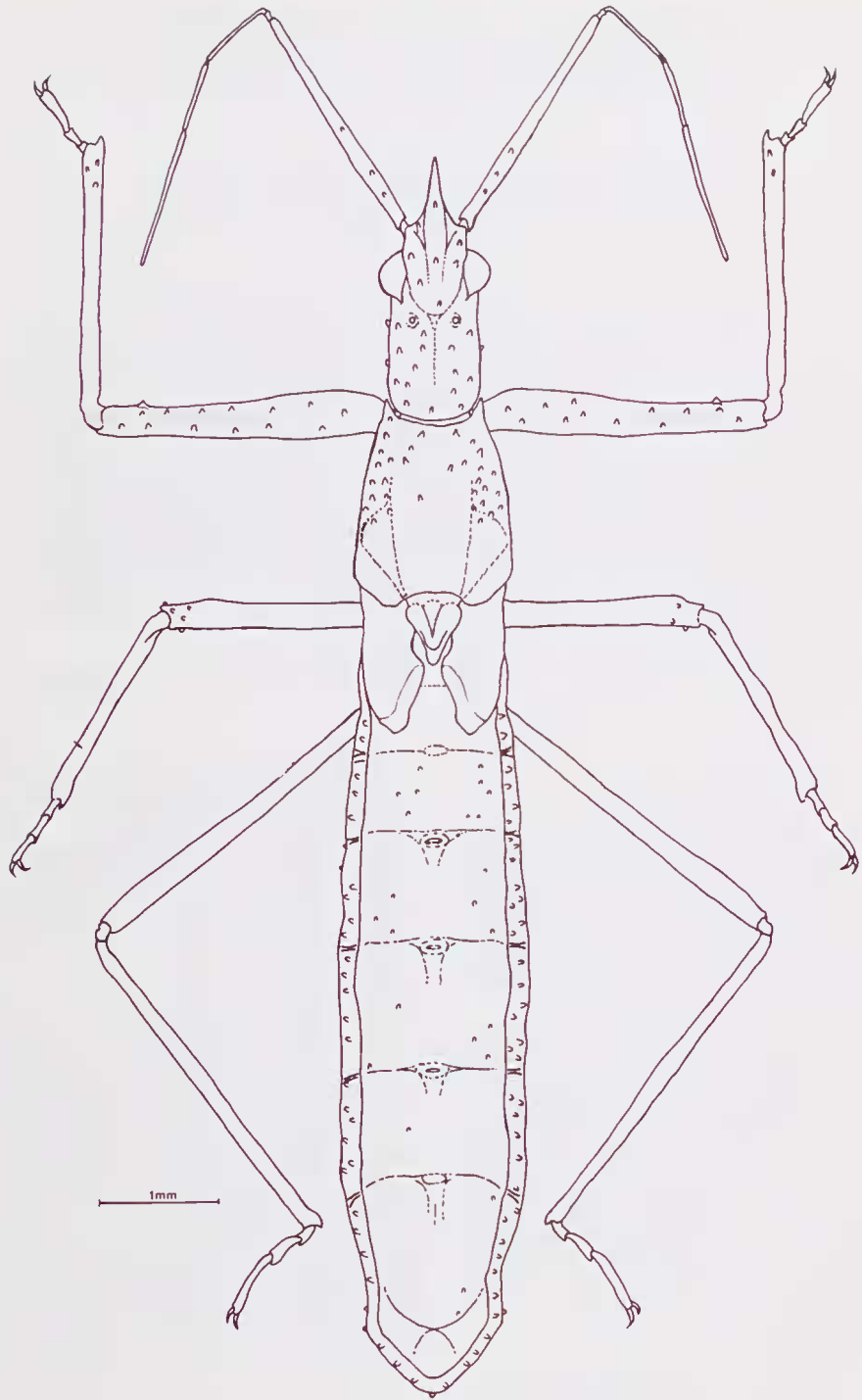
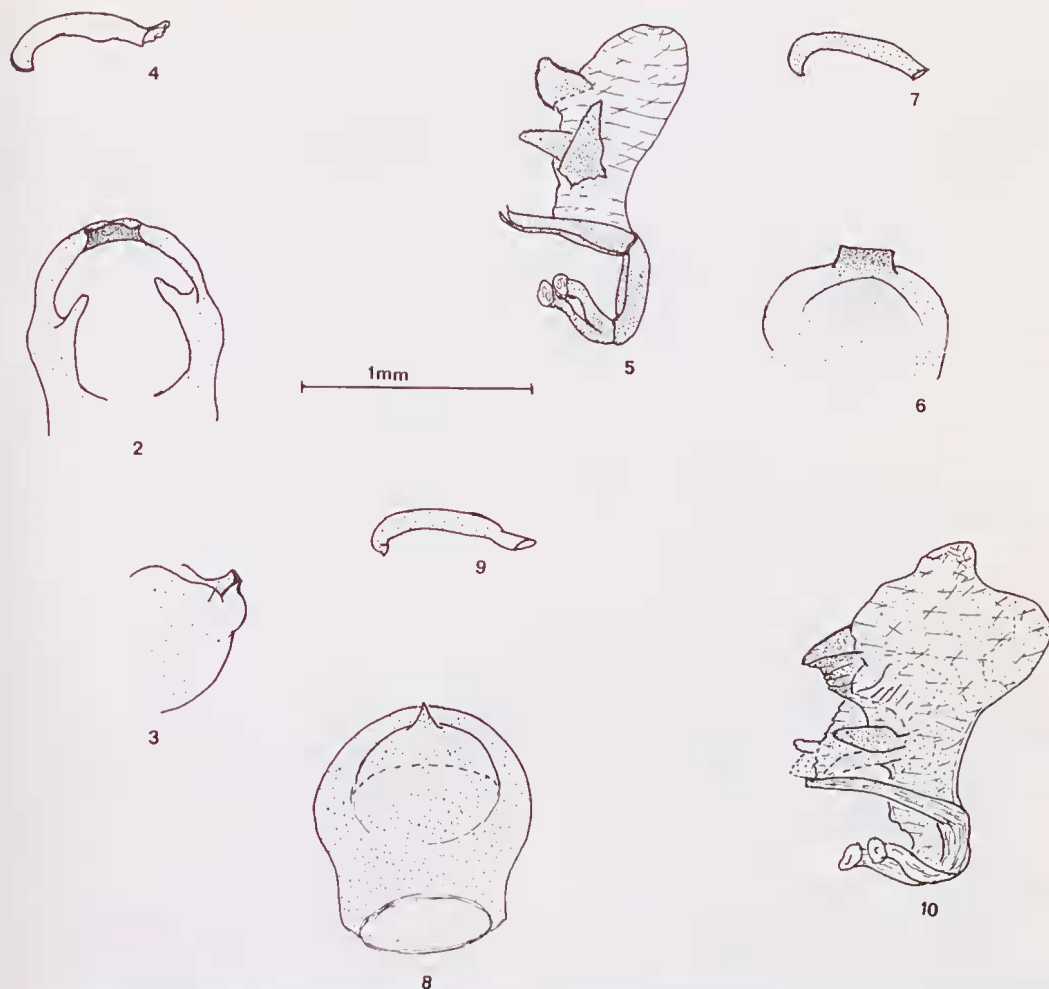


Fig. 1. *Dicrotelus prolixus*, dorsal view.



Figs 2-10. 2-5, *Dicrotelus prolixus* — 2, pygophore, dorsal view; 3, same, lateral view of apical part; 4, left paramere, dorsal view; 5, aedeagus, lateral view. 6, 7, *Nyllius asperatus* — 6, apical part of pygophore, dorsal view; 7, left paramere, dorsal view. 8-10, *N. australicus* — 8, pygophore, dorsal view; 9, left paramere, dorsal view; 10, aedeagus, lateral view. Figs 6 and 8 not to scale.

produced projection between antenna (e.g. Fig. 11), projection laterally flattened, apically pointed and about as long as anteocular part of head. Fore femur more incrassate than other femora, armed below with one or more spines or tubercles.

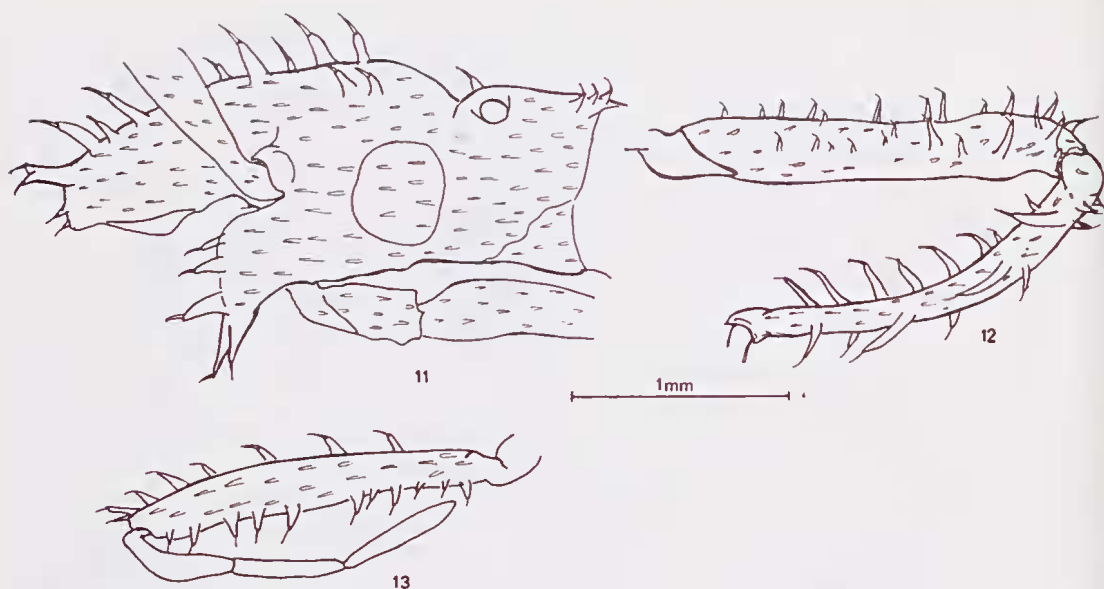
Last visible abdominal segment bilobed, more distinctly in ♀ than in ♂.

Male genitalia: Paramere simple; aedeagus with well developed dorsal phallosclerite, endosoma with sclerotized lobes.

Key to the Australian Genera of Dicrotellini

1. Fore femur armed ventrally with 3 or more spines 2
- Fore femur armed ventrally with 1 preapical spine 4

- 2(1). Fore tibia curved and strongly spined ventrally (e.g. Fig. 12) *Barlireduvius* gen. nov.
- Fore tibia almost straight and unarmed 3
- 3(2). Posterior lobe of pronotum with acute lateral angles; antennal segment 1 conspicuously thicker than other segments; eyes with distinct scalelike setae *Arrilpecoris* gen. nov.
- Posterior lobe of pronotum rounded, without acute lateral angles; antennal segment 1 only slightly thicker than other segments; eyes without distinct scalelike setae *Karlacoris* gen. nov.



Figs 11-13. *Barlireduvius westraliensis*: 11, head, lateral view; 12, left fore femur and tibia, lateral view; 13, left antenna, lateral view.

- 4(1). Posterior lobe area of pronotum not produced laterally; commonly micropterous *Dicrotelus* Erichson
 Posterior lobe area of pronotum conspicuously produced laterally; macropterous 5
 5(4). Sixth visible abdominal segment produced posterolaterally; disc of anterior lobe of pronotum without well developed tubercles or spines *Paranyllius* Miller
 Sixth visible abdominal segment not produced posterolaterally; disc of anterior lobe of pronotum with well developed tubercles or spines
 *Nyllius* Stål

Genus *Dicrotelus* Erichson

Dicrotelus Erichson, 1842:284 (type species *Dicrotelus prolixus* Erichson, 1842, by monotypy).

Dicranurocoris Miller, 1954b:238 Syn. nov.

Description. In addition to that of Miller (1954b) for *Dicranurocoris*.

Male genitalia: Pygophore posterior end with a plate like projection on inner margin (e.g. Figs 2, 3); paramere tip pointed (e.g. Fig. 4); endosoma with 3 large lobes (e.g. Fig. 5).

Notes. When comparing his new genus *Dicranurocoris* with *Dicrotelus*, Miller (1954b) commented that the former has

strongly tuberculate legs and head, spinose anterior lobe and postero-lateral angles of posterior lobe of pronotum, and tuberculate scutellum and connexivum. In the present study I have examined the types of all the species presently included in these genera and a long series of non-type specimens and found a considerable variation in all the above characters, even within a single series. I found no major characters, either external or internal, to distinguish these genera, hence the synonymy.

Dicrotelus prolixus Erichson

(Figs 1-5)

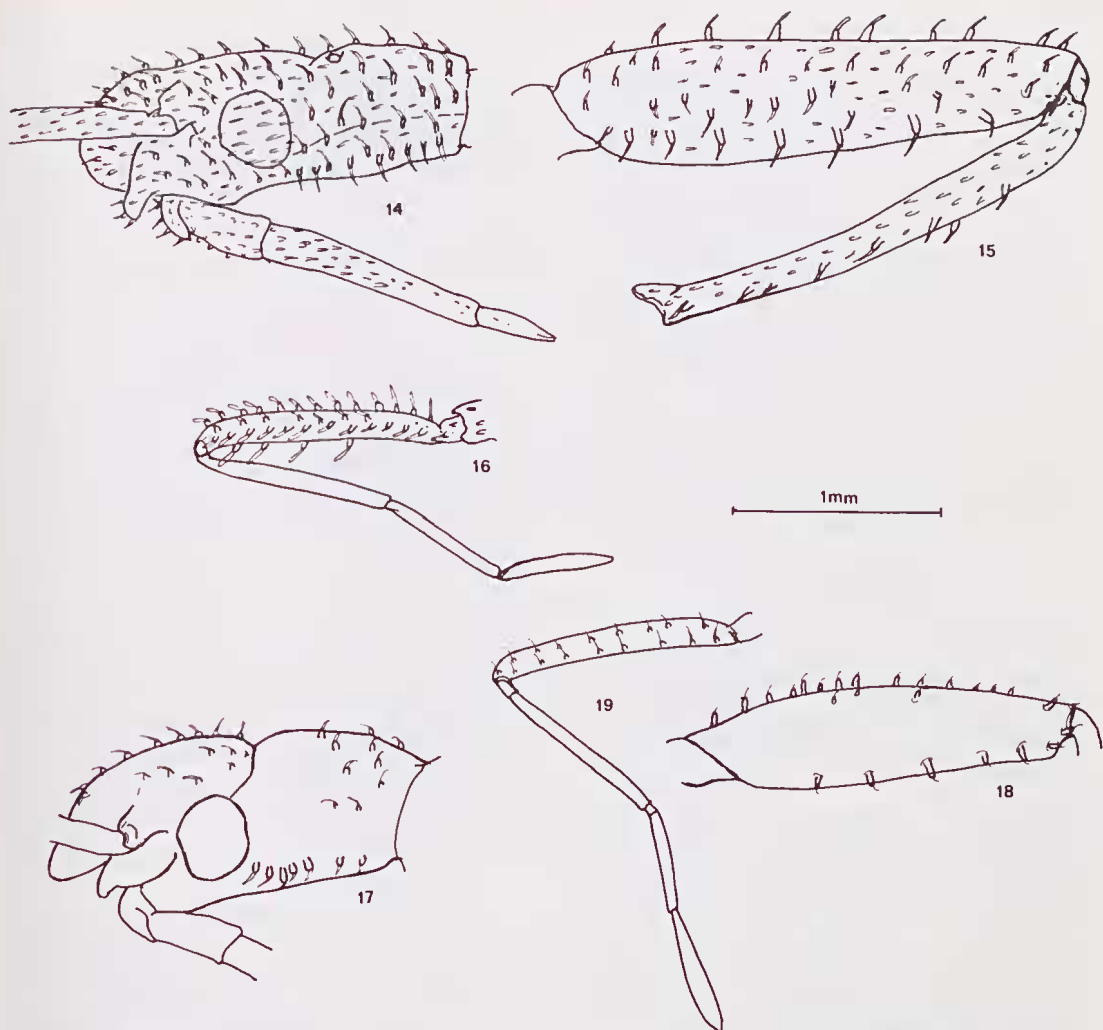
Dicrotelus prolixus Erichson, 1842:284-85; Stål 1874:42.

Dicranurocoris victoriae Miller, 1954b:238-40. Syn. nov.

Dicranurocoris canberrae Miller, 1954b:239-40. Syn. nov.

Dicranurocoris tasmaniae Miller, 1954b:239-40. Syn. nov.

Type material. All micropterous. LECTOTYPE here designated — ♀, "Van Diemens Land Schayer", "2909", "Typus", "*Dicrotelus* Er. *prolixus* Er.", in Zoologisches Museum, Berlin. Following missing: distal segment of right antenna, tarsi of right fore and left midleg. HOLOTYPE —

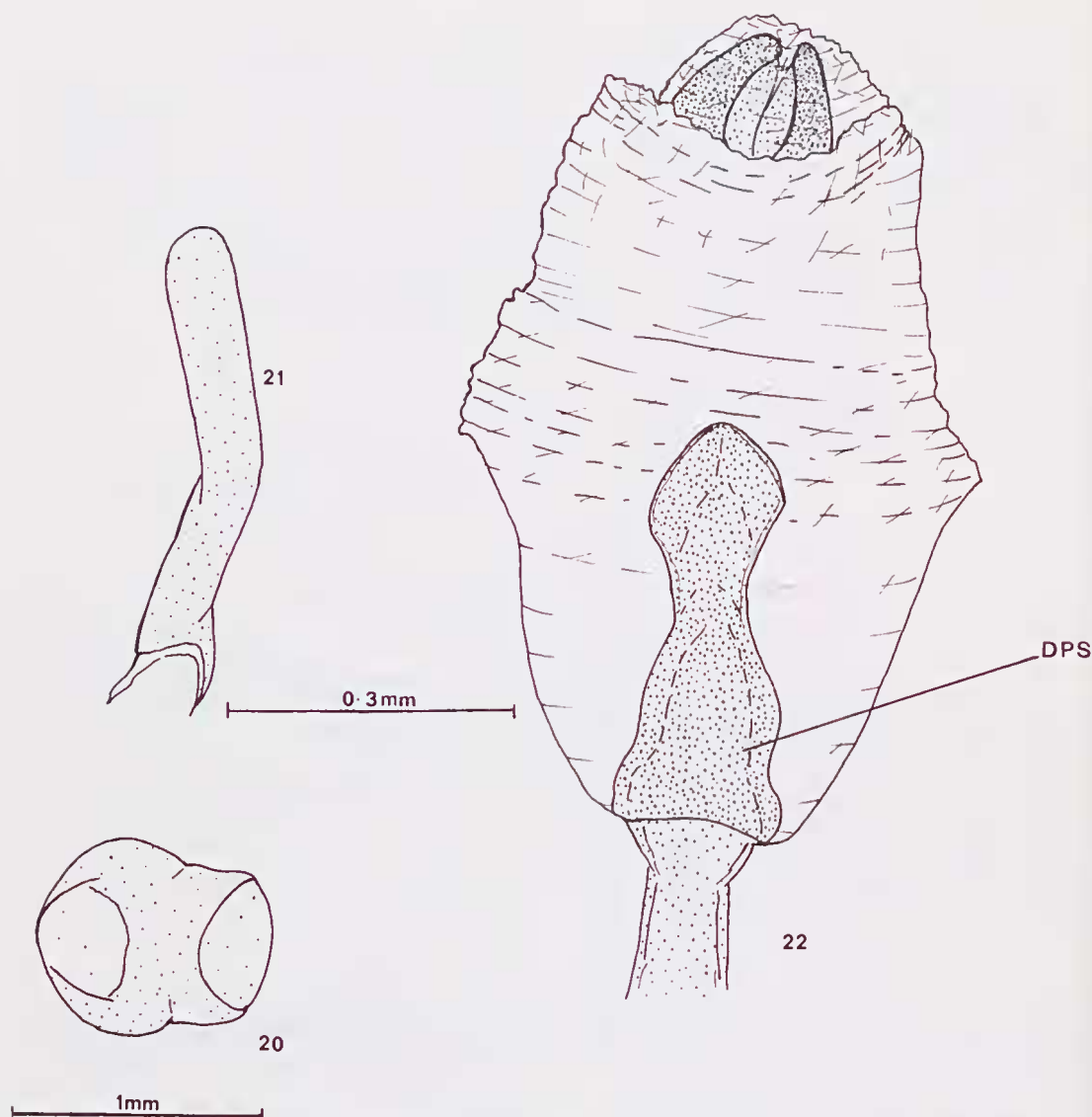


Figs 14-19. 14-16, *Arrilpecoris aridellus* — 14, head, lateral view; 15, left fore femur and tibia, lateral view; 16, left antenna, lateral view. 17-19, *Karlacoris rotundatus* — 17, head, lateral view; 18, left fore femur, lateral view; 19, left antenna, lateral view.

♀, PARATYPE — 1 ♀, *Dicranurocoris victorae* Miller, Toora, Victoria, 16.xii.1937, R.V. Fyfe, in ANIC. HOLOTYPE — ♀, *Dicranurocoris canberra* Miller, Canberra, Australian Capital Territory, xii.1929, H.J. Willings, in ANIC. HOLOTYPE — ♂, PARATYPE — 1 ♀, *Dicranurocoris tasmaniae* Miller, New Norfolk, Tasmania, in tussocks, Lea, in SAM.

Additional material. *Micropterous*: NEW SOUTH WALES: 1 ♀, Wee Jasper, 7.i.1955, T.E. Woodward, in UQIC: 1 ♀, Llangothlin, 16.xii.1975, B. Cantrell, in UQIC. VICTORIA: 1 ♂, 1 ♀, Warburton, Pres. by J.E. Dixon, in MV; 1 ♂, 3 ♀, Healesville, 15.xii.1958, A. Neboiss, in MV;

4 ♂, 2 ♀, Woodend Reserve, 23.v.1919, J.E. Dixon, in MV; 1 (?), Hopkins, Falls, 28.x.1955, A. Neboiss, in MV; 2 ♂, Wallan, 25.xii.1956, F. Hallgarten, in MV; 1 ♂, 2 ♀, Gippsland, 20.viii.1919, J.E. Dixon, in MV; 1 ♂, 3 ♀, Sylvia Ck, Toolangi district, 15.xii.1958, F.E. Wilson, in MV; 2 ♂, 3 ♀, Launching Place, xii.1923, J.E. Dixon, in MV. TASMANIA: 1 ♀, Ouse, light trap, 17.xi.1958, in TDA; 1 ♀, Blackmans Lagoon, 11.xi.1972, A. Neboiss, in MV; 2 ♂, 5 ml W of Oatlands, 5.xii.1974, A. Neboiss, in MV; 1 ♀, North Esk River, Blesington, 1.iii.1967, A. Neboiss, in MV. *Submacropterous*: VICTORIA: 1 ♀, Lower Tarwin, xi.1925, G.F. Hill, in MV.



Figs 20-22 *Karlacoris rotundatus*: **20**, pygophore, dorsal view; **21**, left paramere, dorsal view; **22**, aedeagus, dorsal view. Figs 21 and 22 to same scale. DPS, dorsal phallosclerite.

Description. *Micropterus* — Following are additions to original description of this species and synonymized species listed above:

Measurements are of lectotype, followed by ranges of non-type specimens in parentheses.

Body length 12.92 (9.30-13.20), maximum width 2.11 (1.53-2.28).

Head: Length 2.90 (2.20-2.78), width across eyes 1.00 (0.88-0.98), interocular space 0.60 (0.48-0.52), eye length 0.44 (0.39-0.41); length antennal segments: I, 2.70

(2.20-2.50); II, 0.76 (0.72-0.80); III, 0.68 (0.64-0.65); IV, 1.00 (1.03-1.05).

Thorax: Pronotum length 1.70 (1.28-1.60), maximum width 1.60 (1.08-1.45); scutellum length 0.54 (0.40-0.54), width 0.63 (0.42-0.65); hemelytra extending to posterior margin of or less commonly to middle of 2nd visible abdominal segment, length 1.40 (0.97-1.30).

Abdomen: Male genitalia: Pygophore (Figs 2,3); paramere (Fig. 4); aedeagus (Fig. 5).

Submacropterosus — As for *micropterosus* except:

Body length 13.70, maximum width 2.28.

Head length 2.74, width across eyes 1.00, interocular space 0.50, eye length 0.41; length antennal segments: I, 2.48; remaining segments missing.

Length pronotum 2.04; width posterior margin 1.96; length scutellum 0.80, width 0.72; hemelytra extending to about middle of 3rd last visible abdominal segment, length 6.85, length corium 4.88.

Notes. There are some structural variations between the *micropterosus* and *submacropterosus* forms. In *micropterosus* form the posterior lobe of pronotum is shortened, laterally narrowed and dorsally explanate, and in lateral view slightly lower than the anterior lobe, and the scutellum is also slightly shortened and narrowed.

All Miller's (1954b) species, viz. *canberae*, *tasmaniae* and *victoriae* were distinguished from each other by characters, which I found in the present study after examination of a long series of specimens, to be only minor variations even within specimens from a single locality. Therefore I have synonymized all these species with *prolixus*.

Genus *Nyllius* Stål

Nyllius Stål, 1859:365 (type species *Nyllius asperatus* Stål, 1859, by monotypy).

Orgetorixa China, 1925:486-87. Syn. nov.

Neonyllius Miller, 1954a: 480. Syn. nov.

Description. Body elongate. Head cylindrical, between antennal base spinosely produced; antenna geniculate, 1st segment slightly shorter than head, incrassate; labial 1st segment short, 2nd segment 2 times as long as 1st. Pronotum medially constricted, anterior lobe with many spinules, posterior margin sinuate anterior to scutellum, anterolateral angles spinosely produced; scutellum acutely produced at apex; hemelytra almost fully covering abdomen; anterior femur incrassate, armed below with a minute spine anterior to middle, middle and hind femora subequal.

Abdominal margins armed with spinules.

Male genitalia: Pygophore with a projection on inner margin at posterior end (e.g. Fig. 6); paramere with tip pointed (e.g. Fig. 7); aedeagus with sclerotized lobes on endosoma (e.g. Fig. 10).

Notes. This genus differs from *Dicrotelus* in having almost fully developed hemelytra and the posterior lobe area of pronotum conspicuously produced laterally. Miller (1954a) listed several differences between the genus *Nyllius* and *Orgetorixa*. After examination of a large series of specimens including the types of all the species of these two genera, I find in *Orgetorixa* none of the specimens has the basal segment of antennae longer but is equal or slightly shorter than the head, and the remaining characters listed by Miller are only minor and exhibit considerable variation even within one geographic series. Therefore I synonymise *Orgetorixa* with *Nyllius*. Also I can not find any major characters in *Neonyllius* that would distinguish it from *Nyllius*, hence its synonymy with the latter.

Nyllius asperatus Stål

(Figs 6,7)

Nyllius asperatus Stål, 1859:366.

Neonyllius echinus Miller, 1954a: 480-81.

Syn. nov.

Type material. LECTOTYPE here designated — ♀, "Typus", "2910", "N.H. Orr. Preiss", "*Nyllius asperatus* Stål", in Zoologisches Museum, Berlin. Right mid leg missing. PARALECTOTYPE — 1 ♀, same data as lectotype, in Zoologisches Museum, Berlin. HOLOTYPE — ♂, *Neonyllius echinus* Miller, Queensland, Australia, ex coll. Fruhstorfer, in Vienna Museum. Following missing: right mid and both hind tarsi, distal 2 segments of left and 4th segment of right antennae.

Additional material. WESTERN AUSTRALIA: 1 ♀, 1922-23, in BM; 1 ♀, in BM; 1 ♂, Glen Forrest, feeding at flowers of *Hakea bipinnatifida*, 15.viii.1976, S.M. Postmus, in WAM, 1 ♂, same locality but 18.vii.1976, in WAM; 2 ♂, Frenchman Bay, Albany, on terminal leaves of *Anthoceros viscosa*, 22.i.1972, G.W. Kendrick, in WAM; 2 ♂, Mandurah, 27.xi.1962, A. Douglas leg, in WAM; 1 ♀, Mundaring nr Perth, 15.ix.1923, G.A.K. Marshall, in BM; 1 ♀, Pinjarrah, Lea, in BM. SOUTH AUSTRALIA: 3 ♂, 1 ♀, Kangaroo Island, in SAM, 1 ♀, same locality, 1-6.iii.1886, in SAM. TASMANIA: 1 (?), King Island, in TDA; 1 ♀, Launceston, in TDA; 1 ♂, 1 (?), Margate, J.W. Evans, in TDA; 1 ♂, Mt Wellington, Lea, in TDA.

Description. Generally testaceous or fuscotestaceous; covered with silky hairs except on membrane. Measurements are of lectotype, followed by ranges of non-type specimens in parentheses.

Body length 12.24 (10.00-11.60), maximum width 2.74 (2.40-3.00).

Head: Length 2.74 (2.53-2.61), width across eyes 1.05 (1.05-1.17), interocular space 0.64 (0.52-0.64), interocellar space 0.40 (0.36-0.42), eye-ocellar space 0.31 (0.27-0.30), eye length 0.40 (0.42-0.46). Length antennal segments: I, 2.12 (1.98-2.14); II, 1.13 (1.13-1.26); III, 0.93 (0.99-1.12); IV, 1.05 (0.98).

Thorax: Pronotum length 2.04 (2.02-2.16), maximum width excluding spines 2.40 (2.28-2.63); scutellum length 1.14 (0.93-1.08), width 0.88 (0.79-1.08). Hemelytral length 6.94 (6.50-7.34), corium length 4.80 (4.50-4.86); membrane width 2.04 (1.80-2.12).

Abdomen: Pygophore posterior margin as in Fig. 6; paramere (Fig. 7).

Notes. Internal cell of membrane *sensu* Miller (1954a) is variable even within one geographic series, for instance, Mandurah, W.A. 1♂ has a distinct cell whereas the other ♂ lacks it. But all other W.A. specimens examined have this cell; South Australian and Tasmanian specimens usually do not have a distinct cell. Therefore it is not a good taxonomic character.

Nyllius australicus (China) comb. nov.

(Figs 8-10)

Orgetorixa australica China, 1925:487-88.

Orgetorixa evansi Miller, 1954a:482-83, 485, Syn. nov.

Orgetorixa saeva Miller, 1954a:484-85. Syn. nov.

Type material. HOLOTYPE — ♂, Sydney, New South Wales, J.J. Walker, in BM. PARATYPE — ♀, same data as holotype, in BM. HOLOTYPE — ♂, *Orgetorixa evansi* Miller, New Norfolk, Tasmania, 31.x.1935, in BM. HOLOTYPE — ♂, *Orgetorixa saeva* Miller, Dorrigo, New South Wales, W. Heron, B.M. 1934-232, in BM.

Additional material. QUEENSLAND: 1 ♀, Queen Mary Falls Park nr Killarney, 28.iii.1959, T.E. Woodward, in UQIC; 3 ♀, Lamington National Park, 17-21.ii.1964, G. Monteith and H.A. Rose, in UQIC, 1 ♂, same locality, 18.v.1965, F.D. Page, in

UQIC. NEW SOUTH WALES: 1 ♂, Merimbula, 25.ii.1950, F.E. Wilson, in SAM; 1 ♂, Numeralla, 4.iv.1968, E. McC. Callan, in ANIC. VICTORIA: 1 ♂, in MV; 1 ♀, Mulgrave, 6.i.1924, J.E. Dixon Collection, in MV; 1 ♂, 4 ♀, Warburton district, J.E. Dixon Collection, in MV; 1 ♀, Belgrave, 15.x.1954, F.E. Wilson, in SAM; 1 ♂, 1 ♀, Fern Tree Gully, J.E. Dixon Collection, in MV; 1 ♂, Lorne, 4.ii.1958, N. Dobrotworsky, in MV; 1 ♂, Gembrook, in MV; 1 ♂, Walhalla, iv.1930, F.E. Wilson, in MV; 1 ♂, 3 ♀, Cann River, xi.1928, J. Clark, in MV; 1 ♂, 2km SW Mt Ronald, 2.xii.1976, A.A. Calder, in MV. TASMANIA: 1 ♀, leg Verreaux, in Museum National d'Histoire Naturelle, Paris, 1 ♀, in TM, 1 ♀, A. Simon, in SAM; 1 ♀, Hobart, 8.xi.1913, in TM, 1 ♀, 27.ix.1914, in TM, 1 ♀, Lea, in TM; 1 ♀, Collinsvale Road, 16.x.1970, in TDA; 1 ♂, St Marys, in QM; 1 ♀, Launceston, TDA.

Description. Following are additions to original description.

Measurements are of holotype, followed by ranges of non-type specimens in parentheses.

Body length 12.50 (11.50-15.50), maximum width 2.38 (2.35-3.06).

Head: Length 3.06 (2.82-3.50), width across eyes 1.35 (1.22-1.35), interocular space 0.72 (0.64-0.81), interocellar space 0.31 (0.36-0.40), eye-ocellar space 0.27 (0.27-0.31); eye length 0.54 (0.50-0.54); length of antennal segments: I, antennae missing in holotype (2.48-2.79); II, (1.48-1.53); III, (1.17-1.37); IV, (1.13).

Thorax: Pronotum length 2.52 (2.41-2.52), maximum width 2.70 (2.52-2.70); scutellum length 1.08 (1.08-1.42), width 0.90 (0.96-1.06); hemelytral length 8.16 (7.30-9.75), corium length 5.61 (5.07-6.82), membrane width 2.04 (1.87-2.40).

Abdomen: Male genitalia: Pygophore in dorsal view as in Fig. 8; paramere (Fig. 9); aedeagus (Fig. 10).

Notes. This species differs from *N. asperatus* in having the pygophore with projection on inner margin at posterior end pointed, the posterior lobe of pronotum in lateral view almost smooth without pronounced tubercles, the tip of scutellum slightly more distinctly upcurved, and the basal segment of antennae equal to or only slightly shorter than head.

Genus *Paranyllius* Miller

Paranyllius Miller, 1954a:475 (type species *Paranyllius turneri* Miller, 1954a, by original designation).

Description. In addition to Miller (1954a):

Male genitalia: Pygophore, paramere and aedeagus as in *Nyllius*.

Notes. This genus differs from *Nyllius* in lacking well developed tubercles or spines on the disc of anterior lobe of pronotum, and in having a posterolaterally produced 6th visible abdominal segment. The following modifications to the original description are necessary: internal cell of membrane indistinct; external apical angle of segments 7 and 9 lobately produced in ♀, but not in ♂.

***Paranyllius turneri* Miller**

Paranyllius turneri Miller, 1954a:475, 477-78.

Paranyllius pudicus Miller, 1954a:478-79. Syn. nov.

Type material. HOLOTYPE — ♀, Yanchep, 32m. N of Perth, Western Australia, 29.i-8.ii.1936, R.E. Turner, B.M. 1936-28, in BM. HOLOTYPE — ♂, *Paranyllius pudicus* Miller, Yalingup, South Western Australia, 1-12.xii.?, in BM.

Additional material. WESTERN AUSTRALIA: 1 ♂, 1 ♀, Perth, 25.ii-12.iii.1936, R.E. Turner, B.M. 1936-28, in BM.

Description. Following are additions to original description:

Measurements are of holotype, followed by those of a ♂ non-type specimen in parentheses.

Body length 11.39 (10.43), maximum width 2.43 (1.37).

Head: Length 2.88 (2.40), width across eyes 1.08 (0.97), interocular space 0.63 (0.46), interocellar space 0.24 (0.19), eye-ocellar space 0.24 (0.18), eye length 0.40 (0.39); length antennal segments: I, 1.80 (1.86); II, 1.00 (1.07); III, 0.86 (0.93); IV, 0.72 (0.70).

Thorax. Pronotum length 1.89 (1.51), maximum width excluding spines 2.07 (1.67); scutellum length 1.08 (0.93), width 0.90 (0.78); hemelytral length 6.46 (6.42), corium length 4.42 (4.16); membrane width 1.26 (1.20).

***Barlireduvius* gen. nov.**

Type species *Barlireduvius westraliensis* sp. nov.

Description. Elongate, linear insects. Body above excluding hemelytra and below excluding abdomen and appendages with small, irregular stout spines, fore femur and tibia in addition with long stout spines.

Head about 2 times as long as wide across eyes, with distinct transverse impression near posterior margin of eyes (e.g. Fig. 11) with distinct V shaped smooth line extending from near transverse furrow to base of antenna; antennal segment 1 robust, about 3 times as long as segment 2, armed with stout spines in 2 series (e.g. Fig. 13); labial segment 2 longest.

Pronotum subequal in length to maximum width, with lobes distinct, anterior lobe narrower than posterior lobe, anterior margin concave, posterior margin invaginated, in front of scutellum straight, disc of posterior lobe with a ridge on either side of midline diverging posteriorly towards base of pronotum; scutellum triangular, slightly longer than wide, disc raised, apex produced; legs spined, fore legs longer and stouter than other legs, mid legs shorter than hind legs, fore femur and tibia slightly curved and armed with long stout spines (e.g. Fig. 12); hemelytra exposing narrow lateral area of abdomen.

Abdomen with connexival area particularly towards posterior margin of each segment and posterior margins of last 2 visible segments irregularly spined; last visible segment bilobed.

Notes. The genus differs from all other genera of the tribe Dicrotelini by having fore tibiae curved and ventrally strongly spined, and the 1st antennal segment which has 2 series of distinct spines.

Etymology. "Barli" — bent or curved in "Yindjibarndi", the major Australian Aboriginal language in the type locality, alludes to the bug's curved fore tibia.

***Barlireduvius westraliensis* sp. nov.**

(Figs 11-13)

Type material. HOLOTYPE — ♀, Tambrey, 21.38S 117.36E, Western Australia, 21.viii.1958, R.P. McMillan, in WAM. Fore,

hind and left mid tarsi, and 4th segment of left antenna missing.

Description. Generally stramineous, broad areas on posterior part of head, pronotum, scutellum, clavus, membrane and mid legs fuscous or dark.

Body length 14.50, maximum width 2.90.

Head: Length 2.48, width across eyes 0.96, interocular space 0.72, interocellar space 0.48, eye-ocellar space 0.16; length antennal segments: I, 1.53; II, 0.50; III, 0.46; IV, 0.58; length labial segments: I, 0.46; II, 0.62; III, 0.32.

Thorax: Pronotum length 2.88, width anterior margin 0.99, maximum width excluding spines 2.80; scutellum length 1.28, width 0.93; hemelytra abbreviated exposing terminal 2 1/2 segments, length, 7.34, length corium 4.72.

Arrilpecoris gen. nov.

Type species *Arrilpecoris aridellus* sp. nov.

Description. Elongate, ovate insects. Body and appendages excluding hemelytra sparsely covered with tubercles each distinctly armed with a scalelike setae (e.g. Fig. 14); body and appendages in addition thickly covered with simple scalelike setae, membrane bare.

Head cylindrical behind eyes, about 2 times as long as wide across eyes, with distinct transverse impression near posterior margin of eyes, eyes covered with conspicuous scalelike setae; antennal segment 1 *ca* 1.5 times as long as segment 2 (e.g. Fig. 16); labial segment 2 longest, segment 1 and 3 subequal.

Pronotum equal in length to maximum width, lateral angles acutely produced, lobes distinct, anterior margin concave, posterior margin in front of scutellum gradually concave; scutellum triangular, apex produced upwards; corial outer margins parallel exposing broad area of abdomen.

Etymology. "Arrilpe" — acute or pointed in "Aranda", the major Australian Aboriginal language in the type locality, alludes to the bug's acute lateral angles on posterior lobe of pronotum.

Arrilpecoris aridellus sp. nov.

(Figs 14-16)

Type material. HOLOTYPE — ♀, 32 km S by E of Alice Springs, 23.59S 133.56E,

Northern Territory, 23.ix.1976, J.C. Cardale, in ANIC. PARATYPE — ♀, Native Gap, 19 km SSE of Aileron, 22.48S 133.10E, Northern Territory, 9.ix.1979, I.D. Naumann, in ANIC.

Description. Generally dark reddish brown, abdominal venter dirty yellow, abdominal connexiva with alternate dark and pale bands, legs with irregular dark and pale bands.

Body length 8.30; maximum width 2.64.

Head length 1.76, width across eyes 0.89, interocular space 0.54, interocellar space 0.41, eye-ocellar space 0.23; length antennal segments: I, 1.20; II, 0.83; III, 0.61; IV, 0.51; length labial segments: I, 0.42; II, 1.04; III, 0.31.

Pronotum length 1.96, width anterior margin 0.74, maximum width 2.21; scutellum length 0.81, width 0.62; hemelytra extending to almost tip of abdomen, length 4.88, length corium 3.31.

Karlacoris gen. nov.

Type species *Karlacoris rotundatus* sp. nov.

Description. Elongate, ovate insects. Body above (excluding membrane), below and appendages covered with minute tubercles each distally armed with a bristle (e.g. Fig. 17), fore femur ventrally armed in addition with several spines in 2 irregular series (e.g. Fig. 18), pronotum and femur with some tubercles of varying sizes.

Head about 2 times as long as wide across eyes, with distinct transverse impression near posterior margin of eyes (e.g. Fig. 17), eyes without conspicuous setae; antennal segment 1 less than 1 1/2 times as long as segment 2 (e.g. Fig. 19); labial segment 2 longest, segments 1 and 3 subequal.

Pronotum subequal in length to maximum width, lobes distinct, posterior lobe *ca* 1 1/2 times as long as anterior lobe, latter with regular smooth depressed areas on either side of midline, anterior and posterior margin in front of scutellum concave; scutellum triangular, apex produced upwards; corial outer margin narrowly exposing abdomen.

Male genitalia: Pygophore gradually rounded posteriorly (e.g. Fig. 20), paramere simple (e.g. Fig. 21), endosoma with sclerotized lobes near distal end (e.g. Fig. 22).

Notes. This genus may be easily recognized from *Arrilpecoris* by the characters given in the key.

Etymology. "Karla" — west in "Walmart-jari", the major Australian Aboriginal language in the type locality, alludes to the bug's western distribution in Australia.

***Karlacoris rotundatus* sp. nov.**

(Figs 17-22)

Type material. HOLOTYPE — ♂, Old Fossil Down, 30 m. E. of Fitzroy Crossing, 18.11S 125.53E, Western Australia, W. Martin, in ANIC. Following missing: left mid-tarsi, right fore tarsi, left fore tibia and tarsi.

Description. Generally stramineous, apical segment of labium, small irregular areas on femora, and tibia, tarsal claws and pulvilli, membrane and disc of scutellum fuscous.

Body length 9.60; maximum width 2.28.

Head length 1.76, width across eyes 0.96, interocular space 0.52, interocellar space 0.39, eye-ocellar space 0.17; length antennal segments: I, 1.16; II, 0.88; III, 0.49; IV, 0.59; length labial segments: I, 0.40; II, 1.05; III, 0.37.

Pronotum length 1.96, width anterior margin 0.72, maximum width 2.20; scutellum length 0.88, width 0.86; hemelytra almost fully covering abdomen, length, 4.88, length corium 3.06.

Male genitalia: Pygophore as in (Fig. 20), paramere (Fig. 21), aedeagus with distinct dorsal phallosclerite and sclerotized lobes near distal end of endosoma (Fig. 22).

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